AMENDMENTS TO THE CLAIMS

Please amend the claims as follows, without prejudice or disclaimer. This claim listing replaces all prior claim listings.

- (Currently amended) An expression vector for expressing carcinoembryonic antigen
 (CEA) in a cell, the vector comprising the nucleic acid sequence CEA(6D)-1,2 as
 illustrated in the nucleic acid molecule of SEQ ID NO.: 28 and Figure 9 or a
 fragment thereof.
- 2. (Original) The expression vector of claim 1 wherein the vector is a plasmid or a viral vector.
- 3. (Original) The expression vector of claim 2 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adenoassociated virus.
- 4. (Previously presented) The expression vector of claim 3 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 5. (Previously presented) The expression vector of claim 4 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 6. (Previously presented) The expression vector of claim 1 further comprising at least one additional nucleic acid encoding a tumor-associated antigen.
- 7. (Original) The expression vector of claim 6 wherein the vector is a plasmid or a viral vector.
- 8. (Original) The expression vector of claim 7 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adenoassociated virus.
- (Previously presented) The expression vector of claim 8 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 10. (Previously presented) The expression vector of claim 9 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 11. (Original) The expression vector of claim 1 further comprising at least one nucleic sequence encoding an angiogenesis-associated antigen.

- 12. (Original) The expression vector of claim 11 wherein the vector is a plasmid or a viral vector.
- 13. (Original) The expression vector of claim 12 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adenoassociated virus.
- 14. (Previously presented) The expression vector of claim 13 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 15. (Previously presented) The expression vector of claim 14 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 16. (Original) The expression vector of claim 6 further comprising at least one nucleic sequence encoding an angiogenesis-associated antigen.
- 17. (Original) The expression vector of claim 16 wherein the vector is a plasmid or a viral vector.
- 18. (Original) The expression vector of claim 17 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adenoassociated virus.
- 19. (Previously presented) The expression vector of claim 18 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 20. (Previously presented) The expression vector of claim 19 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 21. (Original) The expression vector of claim 1, 6, 11 or 16 further comprising at least one nucleic acid sequence encoding a co-stimulatory component.
- 22. (Previously presented) The expression vector of claim 21 wherein the vector is a plasmid or a viral vector.
- 23. (Previously presented) The expression vector of claim 22 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.

- 24. (Previously presented) The expression vector of claim 23 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 25. (Previously presented) The expression vector of claim 24 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 26. (Currently amended) A composition comprising an expression vector comprising the nucleic acid sequence CEA(6D)-1,2 as illustrated in of SEQ ID NO.: 28 and Figure 9 or a fragment thereof in a pharmaceutically acceptable carrier.
- 27. (Previously presented) The composition of claim 26 wherein the vector is a plasmid or a viral vector.
- 28. (Previously presented) The composition of claim 27 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
- 29. (Previously presented) The composition of claim 28 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
- 30. (Previously presented) The composition of claim 29 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
- 31-35. Canceled.
- 36. (Currently amended) An isolated DNA molecule comprising the CEA(6D) 1,2 sequence illustrated in nucleic acid sequence of SEQ ID NO.: 28 and Figure 9.
- 37. Canceled.
- 38. (Currently amended) An expression vector comprising a the nucleic acid of SEQ ID NO: 28.
- 39. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding a co-stimulatory molecule.
- 40. (Previously presented) The expression vector of claim 39 wherein the co-stimulatory molecule is human B7.1.
- 41. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding at least one additional tumor-associated antigen.

- 42. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding at least one angiogenesis-associated antigen.
- 43. (Previously presented) A composition comprising an expression vector of any one of claims 38-42 in a pharmaceutically acceptable carrier.
- 44. (Currently amended) An isolated nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO: 28.
- 45. (Currently amended) An isolated nucleic acid molecule comprising a <u>CEA-encoding</u> nucleic acid sequence fragment of SEQ ID NO: 28, the fragment including at least nucleotides 421-1490 thereof SEQ ID NO.: 28.
- 46. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding a co-stimulatory molecule.
- 47. (Previously presented) The isolated nucleic acid molecule of claim 46 wherein the co-stimulatory molecule is human B7.1.
- 48. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding at least one additional tumor-associated antigen.
- 49. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding at least one angiogenesis-associated antigen.
- 50. (Previously presented) A composition comprising an isolated nucleic acid molecule of any one of claims 44-49 in a pharmaceutically acceptable carrier.
- 51. (New) An expression vector comprising the CEA-encoding nucleic acid sequence of SEQ ID NO.: 28.
- 52. (New) An isolated nucleic acid molecule encoding a CEA polypeptide, the nucleic acid molecule comprising a nucleic acid sequence that hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.
- 53. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.
- 54. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 429-876 of SEQ ID NO.: 28.

- 55. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to the AccI-BamHI fragment of SEQ ID NO.: 28.
- 56. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 891-1488 of SEQ ID NO.: 28.
- 57. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to the BamHI-Bsu361 fragment of SEQ ID NO.: 28.
- 58. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.
- 59. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 429-876 of SEQ ID NO.: 28.
- 60. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to the AccI-BamHI fragment of SEQ ID NO.: 28.
- 61. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 891-1488 of SEQ ID NO.: 28.
- 62. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to the BamHI-Bsu361 fragment of SEQ ID NO.: 28.
- 63. (New) A nucleic acid molecule of any one of claims 51-62, the nucleic acid molecule further comprising at least one nucleic acid sequence encoding a co-stimulatory component.
- 64. (New) The nucleic acid molecule of claim 63 wherein the co-stimulatory component is human B7.1.
- 65. (New) An expression vector comprising the nucleic acid molecule of any one of claims 51-64.
- 66. (New) A composition comprising the expression vector of claim 65 and a pharmaceutically acceptable carrier.